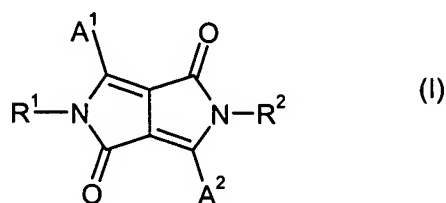


In the claims:

1. **(currently amended):** A fluorescent diketopyrrolopyrrole of formula I



, wherein

R¹ and R² may be the same or different and are a C₁-C₂₅alkyl group, which can be substituted by fluorine, chlorine or bromine, an allyl group, which can be substituted one to three times with C₁-C₄alkyl, a cycloalkyl group, a cycloalkyl group, which can be condensed one or two times by phenyl which can be substituted one to three times with C₁-C₄-alkyl, halogen, nitro or cyano, an alkenyl group, a cycloalkenyl group, an alkynyl group, a haloalkyl group, a haloalkenyl group, a haloalkynyl group, a ketone or aldehyde group, an ester group, a carbamoyl group, a ketone group, a silyl group, a siloxanyl group, A³ or -CR³R⁴-(CH₂)_m-A³ wherein

R³ and R⁴ independently from each other stand for hydrogen or C₁-C₄alkyl, or phenyl which can be substituted one to three times with C₁-C₄alkyl,

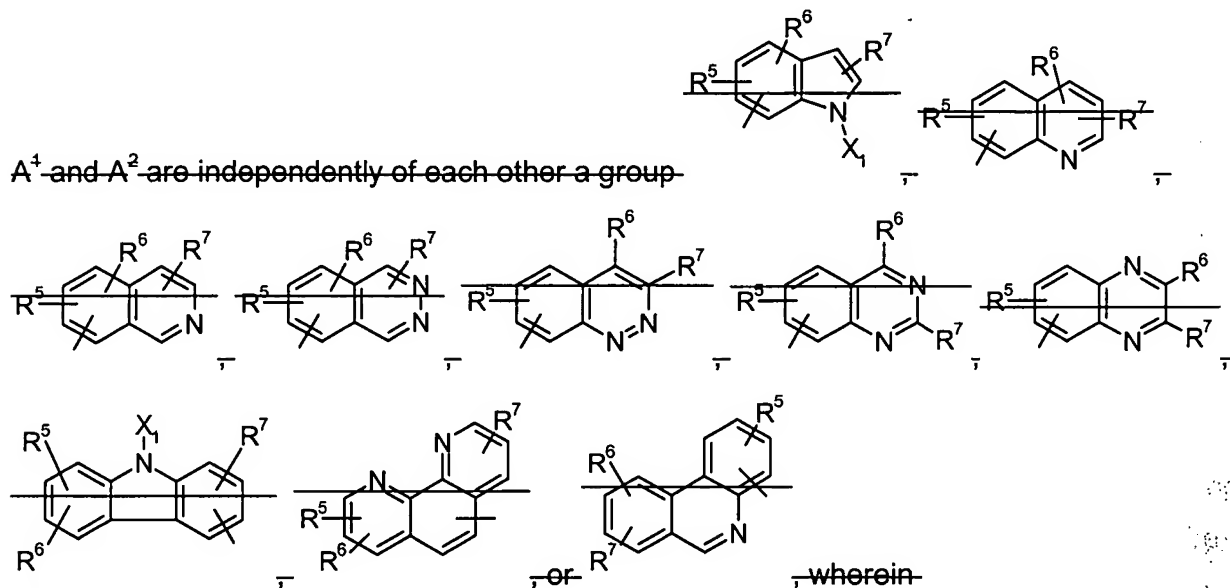
A³ stands for aryl or heteroaryl, which can be substituted one to three times with C₁-C₈alkyl and/or C₁-C₈alkoxy, and m stands for 0, 1, 2, 3 or 4,

A¹ and A² are independently of each other a group comprising ~~a five-membered heterocyclic ring, containing one to three heteroatoms selected from the group of nitrogen, oxygen and sulfur, or a six-membered heterocyclic ring, containing one to three heteroatoms selected from the group of nitrogens, oxygen and sulfur, wherein, if A¹ and A² are a single five- or six-~~

~~membered-heterocyclic ring of formula~~ , or , said heterocyclic ring is substituted by at least a group selected from a C₁-C₂₅alkyl group, a cycloalkyl group, an aralkyl group, an alkenyl group, a cycloalkenyl group, an alkynyl group, a hydroxyl group, a mercapto group, an alkoxy group, an alkylthio group, an aryl ether group, an aryl thioether group, an aryl group, a heterocyclic group, a halogen atom, a haloalkyl group, a haloalkenyl group, a haloalkynyl group, a cyano group, an aldehyde group, a carboxyl group, an ester group, a carbamoyl group, an amino group, a nitro group, a silyl group, a siloxanyl group, a

substituted or unsubstituted vinyl group, a group NR^8R^9 , wherein R^8 and R^9 independently of each other stand for a hydrogen atom, an alkyl group, a cycloalkyl group, an aryl group, a heteroaryl group, a heterocyclic group, an aralkyl group, or R^8 and R^9 together with the nitrogen atom to which they are bonded form a five or six membered heterocyclic ring, which can be condensed by one or two optionally substituted phenyl groups, wherein the heterocyclic ring is directly bonded to the DPP basis unit.

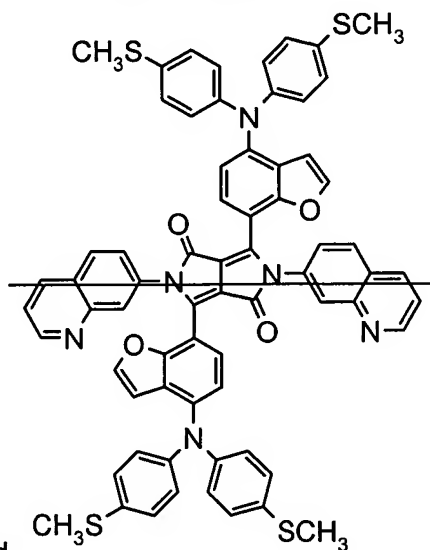
or



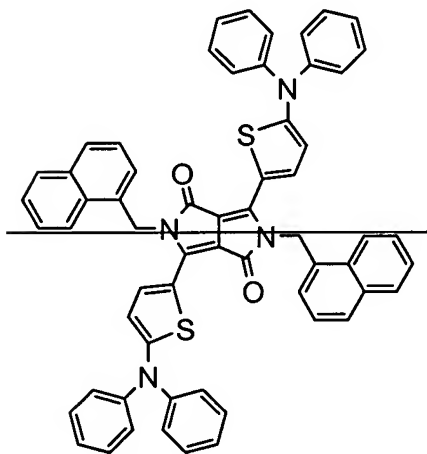
R^5 , R^6 , and R^7 may be the same or different and are a hydrogen atom, a C_4 - C_{25} alkyl group, a cycloalkyl group, an aralkyl group, an alkenyl group, a cycloalkenyl group, an alkynyl group, a hydroxyl group, a mercapto group, an alkoxy group, an alkylthio group, an aryl ether group, an aryl thioether group, an aryl group, a heterocyclic group, a halogen atom, a haloalkyl group, a haloalkenyl group, a haloalkynyl group, a cyano group, an aldehyde group, a carboxyl group, an ester group, a carbamoyl group, a nitro group, a silyl group, a siloxanyl group, a substituted or unsubstituted vinyl group, a group NR^8R^9 , wherein R^8 and R^9 independently of each other stand for a hydrogen atom, an alkyl group, a cycloalkyl group, an aryl group, a heteroaryl group, a heterocyclic group, an aralkyl group, or R^8 and R^9 together with the nitrogen atom to which they are bonded form a five or six membered heterocyclic ring, which can be condensed by one or two optionally substituted phenyl groups, or at least two adjacent substituents R^5 to R^7 form an aromatic or aliphatic fused ring system, and

X^1 is a hydrogen atom, a C_4 - C_{25} alkyl group, a cycloalkyl group, an aralkyl group, an aryl group, or a heterocyclic group, wherein at least one of the groups R^5 , R^6 , and R^7 is different from a hydrogen atom, if A^1 and A^2 are a single five or six membered heterocyclic ring, containing one

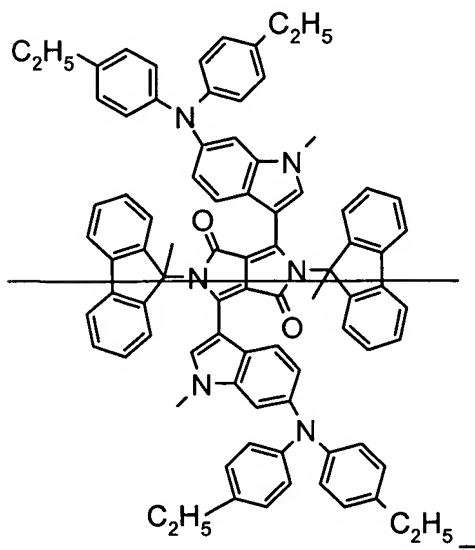
heteroatom selected from the group of nitrogen, oxygen and sulfur, with the proviso, that the



following compounds are excluded

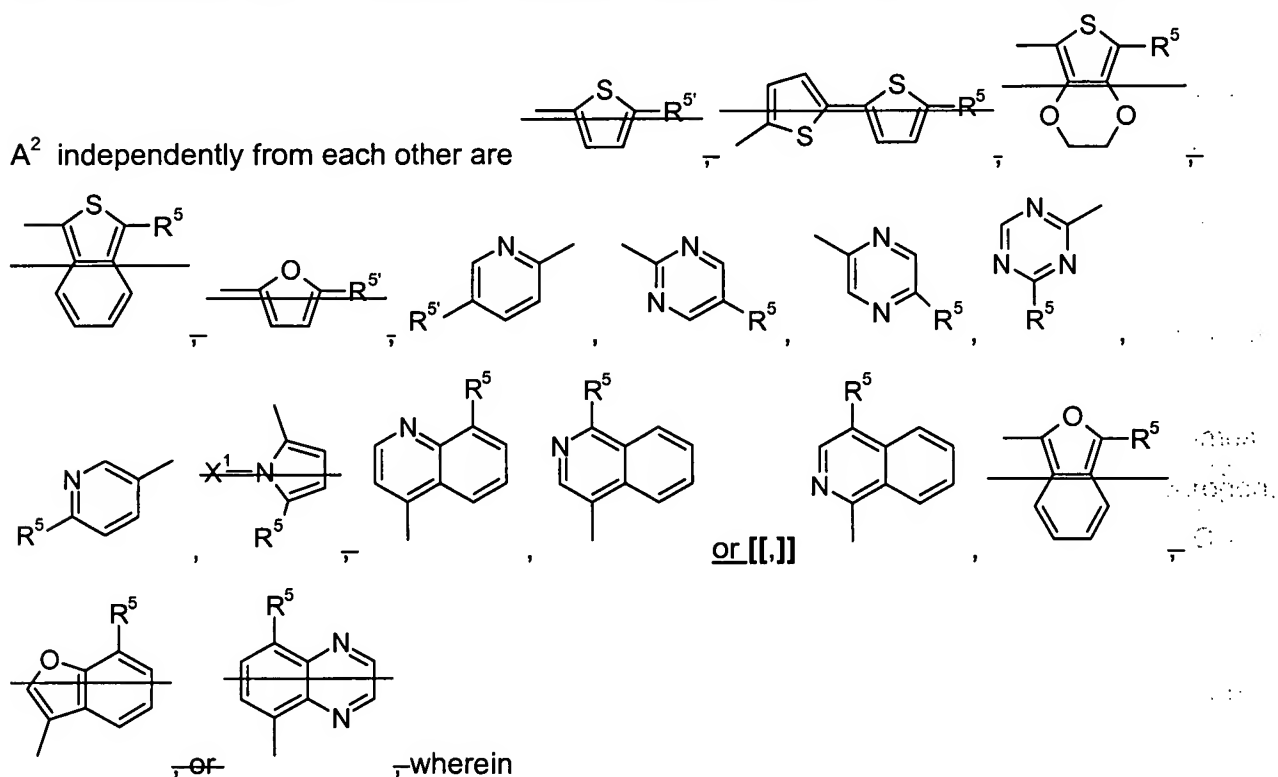


-and-

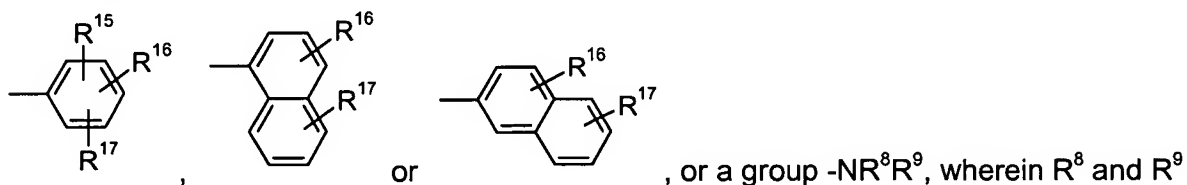


2. **(previously presented):** A fluorescent diketopyrrolopyrrole according to claim 1, wherein R^1 and R^2 independently from each other are C_1 - C_8 alkyl, C_5 - C_{12} -cycloalkyl, which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, or C_5 - C_{12} cycloalkyl, which can be condensed one or two times by phenyl which can be substituted one to three times with C_1 - C_4 -alkyl, halogen, nitro or cyano, phenyl or 1- or 2-naphthyl which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, or $-CR^3R^4-(CH_2)_m-A^3$ wherein R^3 and R^4 stand for hydrogen, A^3 stands for phenyl or 1- or 2-naphthyl, which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, and m stands for 0 or 1.

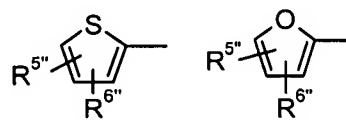
3. **(currently amended):** A fluorescent diketopyrrolopyrrole according to claim 1, wherein A^1 and

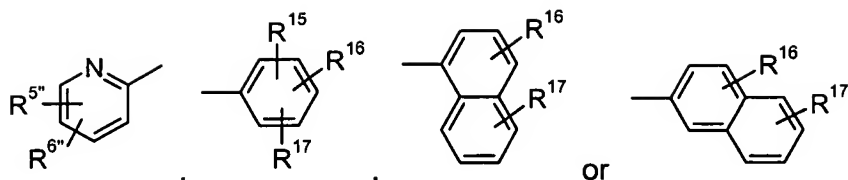


R^5 is a hydrogen atom, a C_1 - C_{12} alkyl group, a C_1 - C_8 alkoxy group, a group of formula



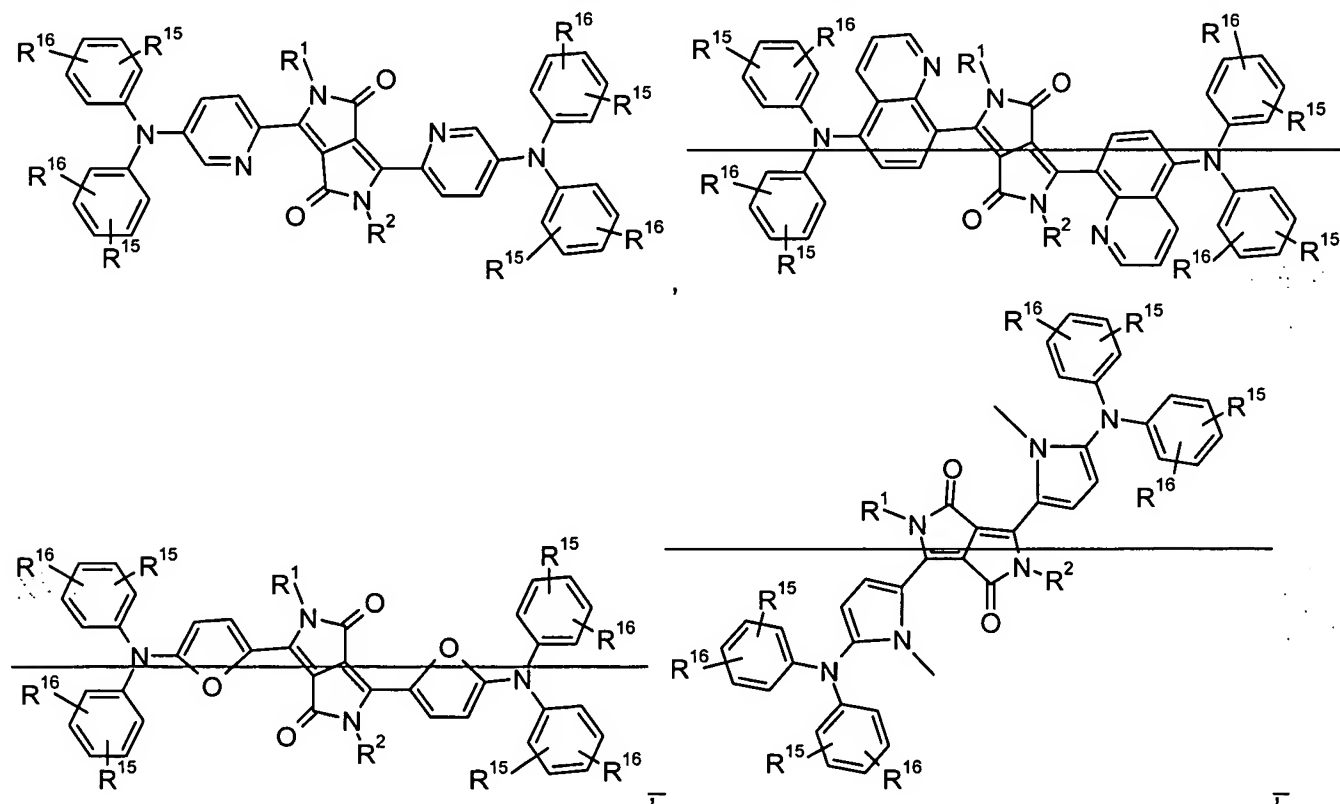
independently from each other stand for C_1 - C_8 alkyl group,

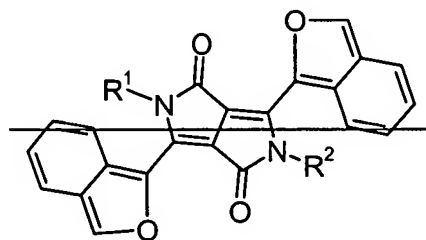
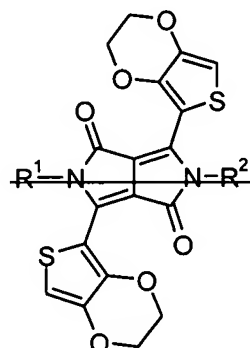
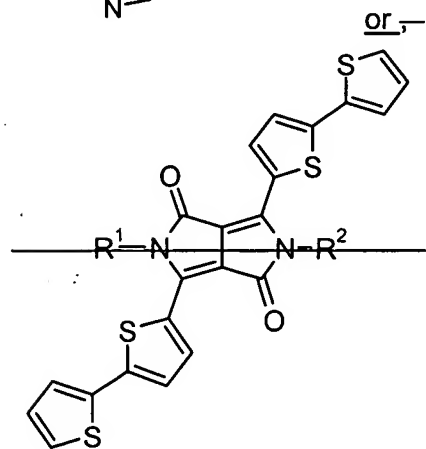
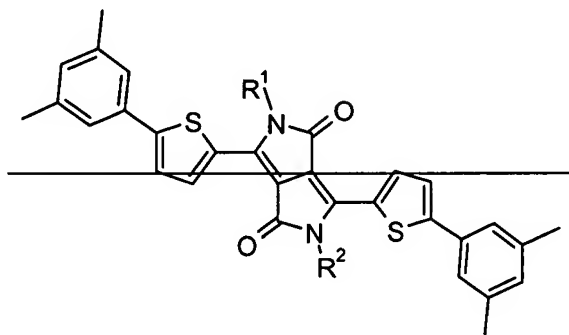
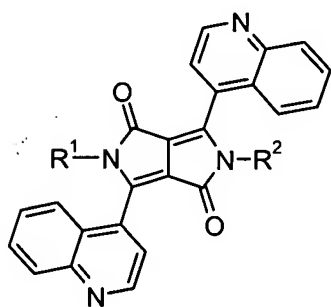
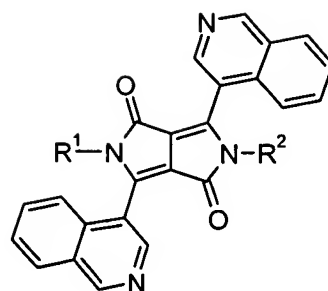
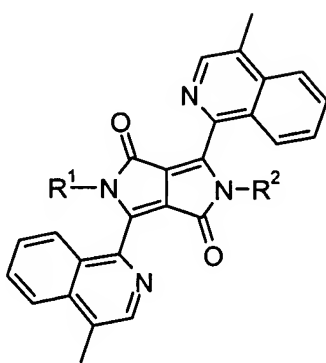
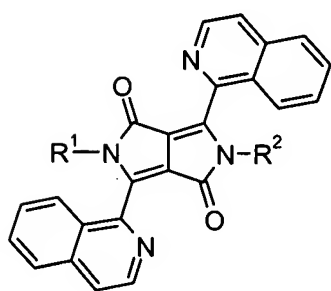
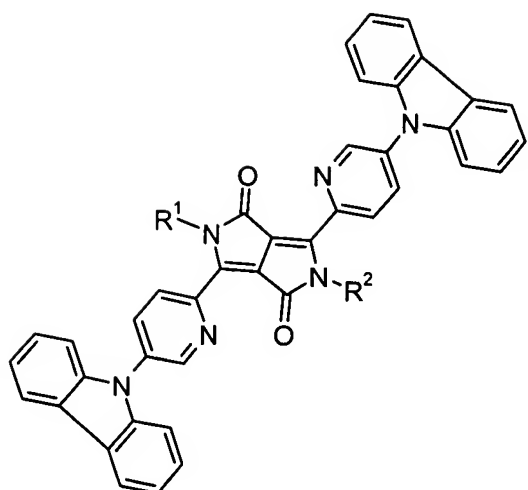


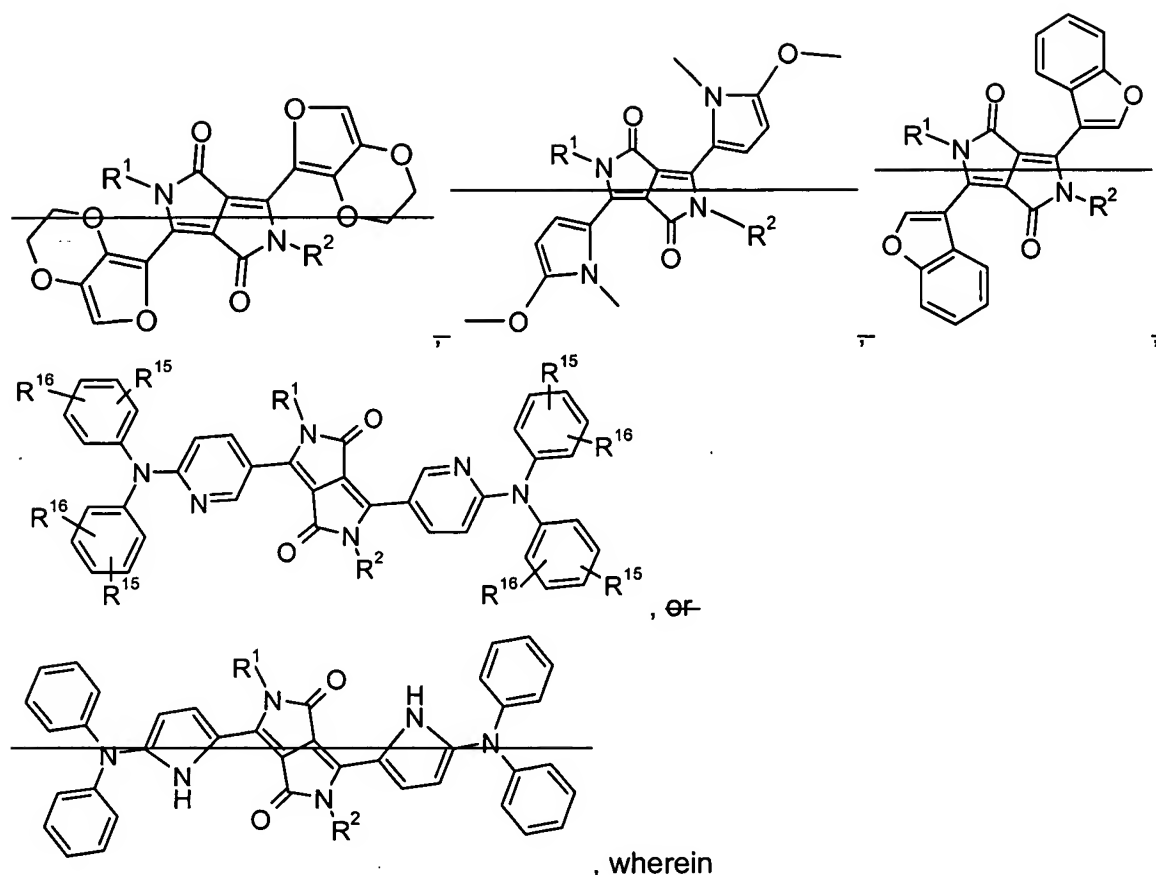


, or R^8 and R^9 together with the nitrogen atom to which they are bonded form a five or six membered heterocyclic ring which can be condensed by one or two optionally substituted phenyl groups, wherein R^{15} , R^{16} and R^{17} independently from each other stands for hydrogen, C_1 - C_8 -alkyl, C_1 - C_8 -alkoxy, or phenyl, $R^{5'}$ is R^5 , except hydrogen, $R^{5''}$ and $R^{6''}$ independently from each other stands for hydrogen, C_1 - C_8 -alkyl or C_1 - C_8 -alkoxy, and X^4 stands for hydrogen, or C_1 - C_8 -alkyl.

4. (currently amended): A fluorescent diketopyrrolopyrrole according to claim 3, which is



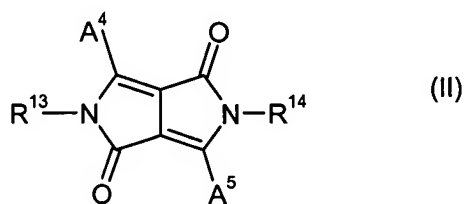




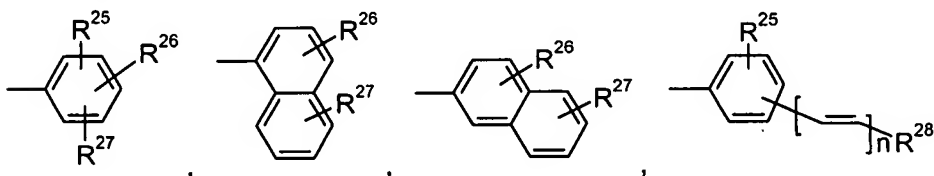
R^1 and R^2 are independently of each other a C_1 - C_{12} alkyl group, a C_5 - C_7 cycloalkyl group, which optionally can be substituted by one to three C_1 - C_8 -alkyl or C_1 - C_8 -alkoxy groups, a C_5 - C_7 cycloalkyl group, which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, or which can be condensed one or two times by optionally substituted phenyl, or a C_7 - C_{14} aralkylgroup, which optionally can be substituted by one to three C_1 - C_8 -alkyl or C_1 - C_8 -alkoxy groups, and R^{15} and R^{16} stands for hydrogen, C_1 - C_8 -alkyl, C_1 - C_8 -alkoxy, or phenyl.

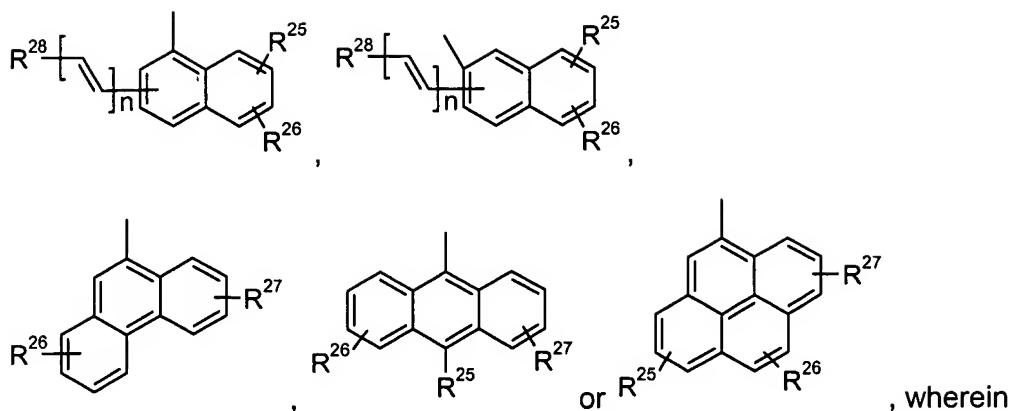
5. **(previously presented):** A composition comprising a guest chromophore and a host chromophore, wherein the absorption spectrum of the guest chromophore overlaps with the fluorescence emission spectrum of the host chromophore, wherein the host chromophore is a diketopyrrolopyrrole having a photoluminescence emission peak at 500 to 720 nm and wherein the host chromophore and/or the guest chromophore is a diketopyrrolopyrrole of formula I according to claim 1.

6. **(previously presented):** A composition comprising a guest chromophore and a host chromophore, wherein the absorption spectrum of the guest chromophore overlaps with the fluorescence emission spectrum of the host chromophore, wherein the host chromophore is a diketopyrrolopyrrole having a photoluminescence emission peak at 500 to 720 nm and wherein the guest chromophore is a diketopyrrolopyrrole of formula I according to claim 1 .
7. **(original):** A composition according to claim 6, wherein the host chromophore is a diketopyrrolopyrrole ("DPP") represented by formula II



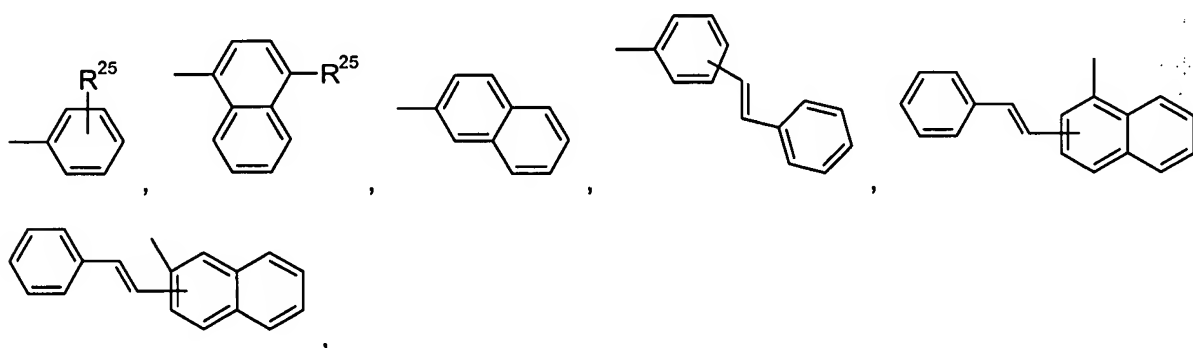
wherein R^{13} and R^{14} independently from each other stand for C_1 - C_{25} -alkyl, which can be substituted by fluorine, chlorine or bromine, C_5 - C_{12} -cycloalkyl or C_5 - C_{12} -cycloalkyl, which can be condensed one or two times by phenyl which can be substituted one to three times with C_1 - C_4 -alkyl, halogen, nitro or cyano, silyl, A^6 or $-CR^{11}R^{12}-(CH_2)_m-A^6$, wherein R^{11} and R^{12} independently from each other stand for hydrogen, fluorine, chlorine, bromine, cyano or C_1 - C_4 -alkyl, which can be substituted by fluorine, chlorine or bromine, or phenyl which can be substituted one to three times with C_1 - C_4 -alkyl, A^6 stands for phenyl or 1- or 2-naphthyl which can be substituted one to three times with C_1 - C_8 -alkyl, C_1 - C_8 -alkoxy, halogen, nitro, cyano, phenyl, which can be substituted with C_1 - C_8 -alkyl or C_1 - C_8 -alkoxy one to three times, $-NR^{23}R^{24}$, wherein R^{23} and R^{24} represent hydrogen, C_1 - C_{25} -alkyl, C_5 - C_{12} -cycloalkyl or C_6 - C_{24} -aryl, in particular phenyl or 1- or 2-naphthyl which can be substituted one to three times with C_1 - C_8 -alkyl, C_1 - C_8 -alkoxy, halogen or cyano, or phenyl, which can be substituted with C_1 - C_8 -alkyl or C_1 - C_8 -alkoxy one to three times, and m stands for 0, 1, 2, 3 or 4, A^4 and A^5 independently from each other stand for

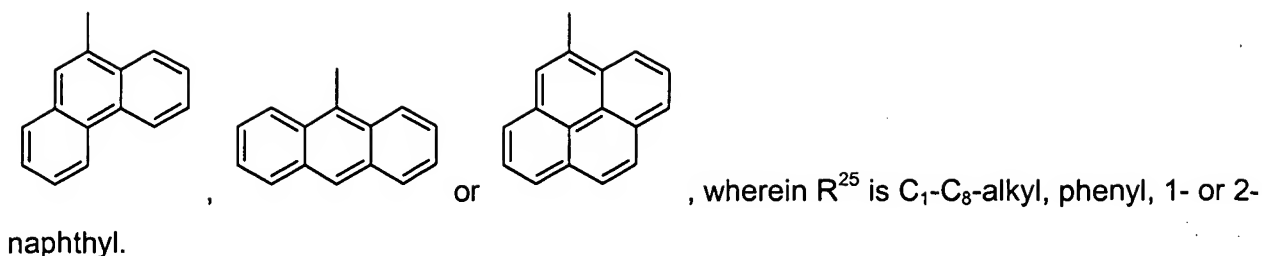




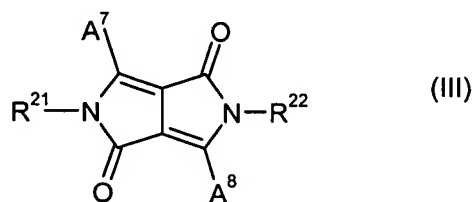
R^{25} , R^{26} , R^{27} independently from each other stands for hydrogen, C_1 - C_{25} alkyl, $-CR^{11}R^{12}-(CH_2)_m-A^6$, cyano, halogen, $-OR^{29}$, $-S(O)_pR^{30}$, or phenyl, which can be substituted one to three times with C_1 - C_8 alkyl or C_1 - C_8 alkoxy, wherein R^{29} stands for C_1 - C_{25} alkyl, C_5 - C_{12} -cycloalkyl, $-CR^{11}R^{12}-(CH_2)_m-Ph$, C_6 - C_{24} -aryl, or a saturated or unsaturated heterocyclic radical comprising five to seven ring atoms, wherein the ring consists of carbon atoms and one to three hetero atoms selected from the group consisting of nitrogen, oxygen and sulfur, R^{30} stands for C_1 - C_{25} alkyl, C_5 - C_{12} -cycloalkyl, $-CR^{11}R^{12}-(CH_2)_m-Ph$, R^{28} stands for C_2 - C_{20} -heteroaryl or C_6 - C_{24} -aryl, p stands for 0, 1, 2 or 3, m and n stands for 0, 1, 2, 3 or 4.

8. **(previously presented):** A composition according to claim 7, wherein R^{13} and R^{14} independently from each other stand for C_1 - C_8 alkyl, C_5 - C_{12} -cycloalkyl, which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, phenyl or 1- or 2-naphthyl which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, or $-CR^{11}R^{12}-(CH_2)_m-A^6$ wherein R^{11} and R^{12} stand for hydrogen, or C_1 - C_4 alkyl, A^6 stands for phenyl or 1- or 2-naphthyl, which can be substituted one to three times with C_1 - C_8 alkyl and/or C_1 - C_8 alkoxy, and m stands for 0 or 1.
9. **(previously presented):** A composition according to claim 7, wherein A^4 and A^5 independently from each other stand for





10. **(previously presented):** An EL device comprising a fluorescent diketopyrrolopyrrole according to claim 1.
11. **(currently amended):** A diketopyrrolopyrrole according to claim 1 of formula III



, wherein

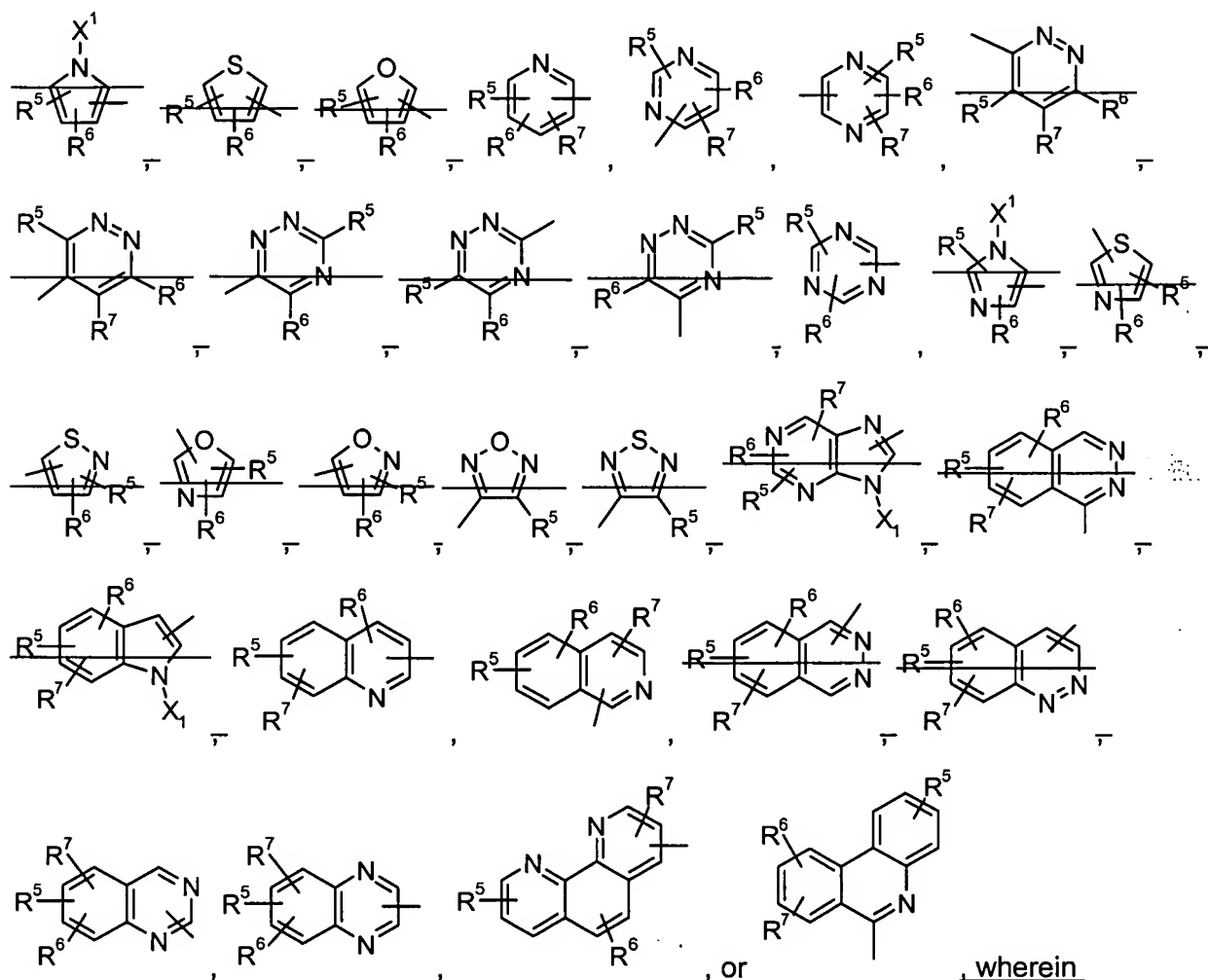
R²¹ and R²² may be the same or different and are a C₁-C₂₅alkyl group, an allyl group, which can be substituted one to three times with C₁-C₄alkyl, a cycloalkyl group, a cycloalkyl group, which can be condensed one or two times by phenyl which can be substituted one to three times with C₁-C₄-alkyl, halogen, nitro or cyano, an alkenyl group, a cycloalkenyl group, an alkynyl group, a haloalkyl group, a haloalkenyl group, a haloalkynyl group, a ketone or aldehyde group, an ester group, a carbamoyl group, a ketone group, a silyl group, a siloxanyl group, A³ or -CR³R⁴-(CH₂)_m-A³ wherein

R³ and R⁴ independently from each other stand for hydrogen or C₁-C₄alkyl, or phenyl which can be substituted one to three times with C₁-C₄alkyl,

A³ stands for aryl or heteroaryl, which can be substituted one to three times with C₁-C₈alkyl and/or C₁-C₈alkoxy, and m stands for 0, 1, 2, 3 or 4,

A⁷ and A⁸ independently from each other are selected from

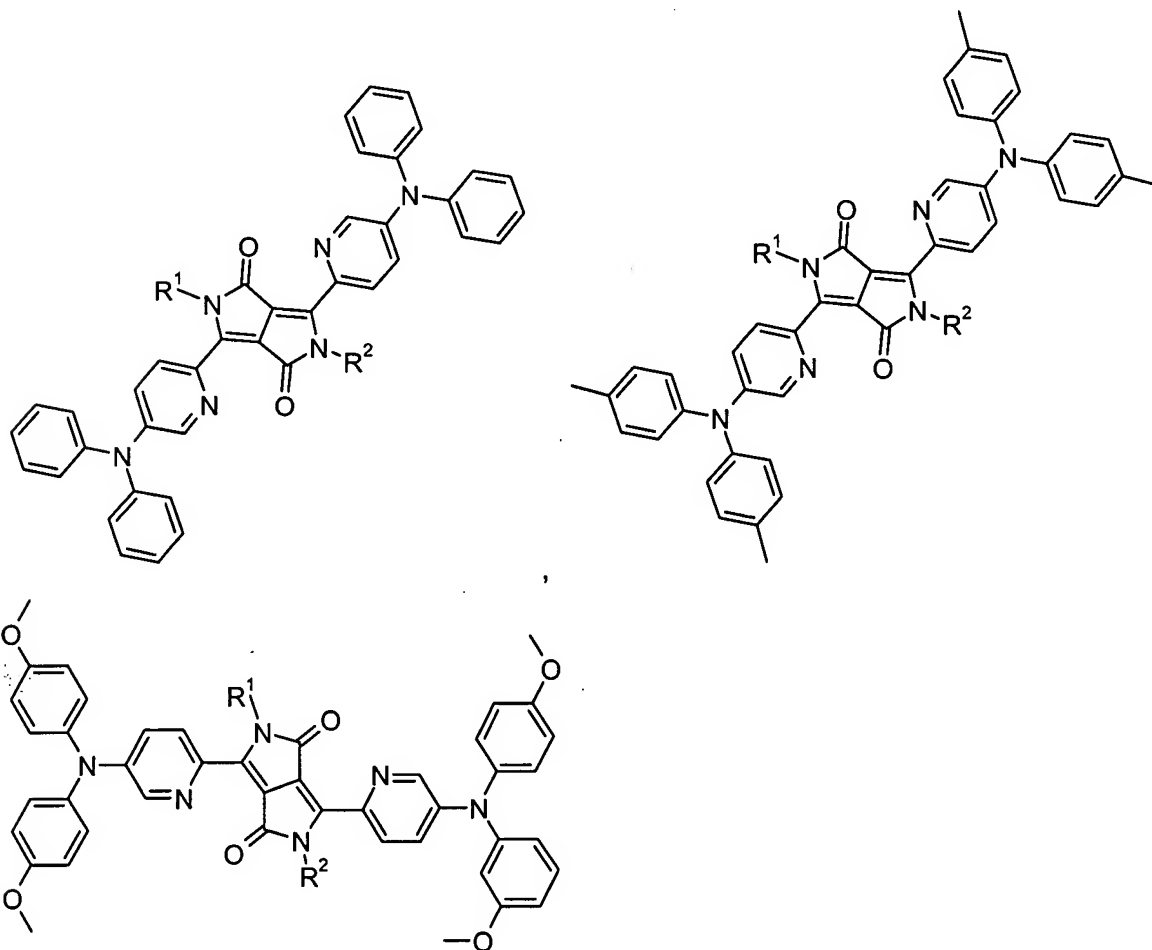
16. **(previously presented):** A fluorescent tracer, color changing medium, solid dye laser, or EL device comprising a fluorescent diketopyrrolopyrrole according to claim 1.
17. **(previously presented):** A fluorescent tracer, color changing medium, solid dye laser, or EL device comprising a composition according to claim 5.
18. **(currently amended):** A fluorescent diketopyrrolopyrrole according to claim 1, wherein A¹ and A² are independently of each other

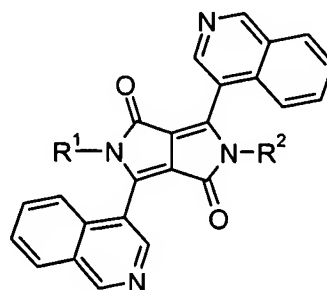
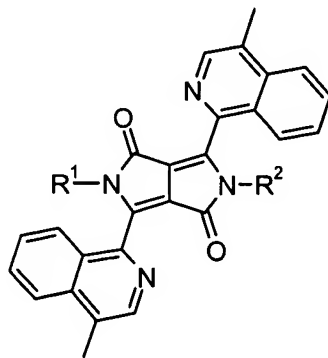
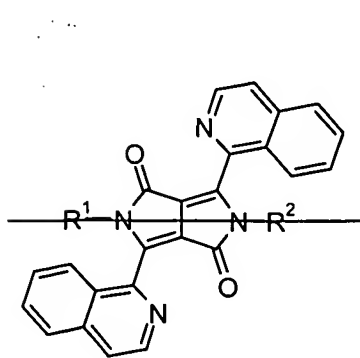
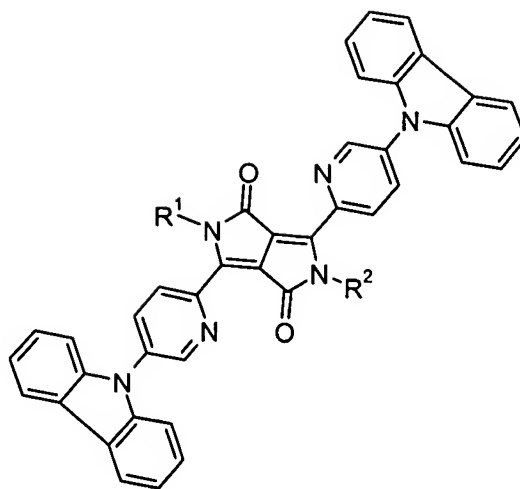
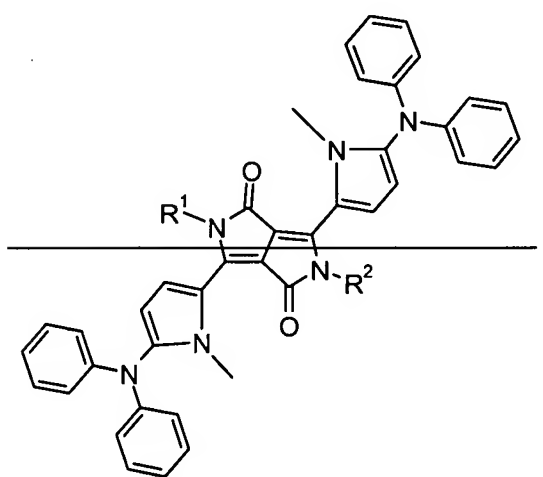
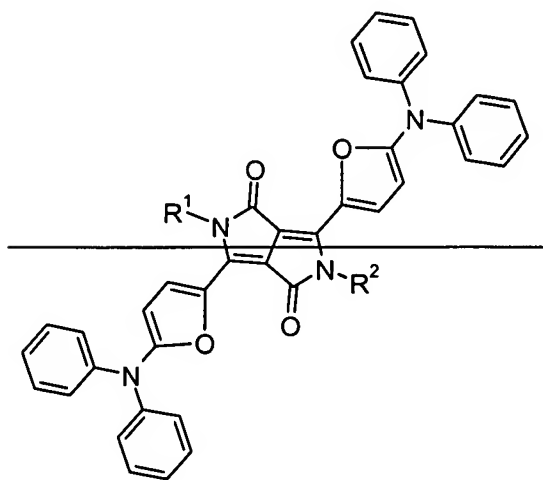
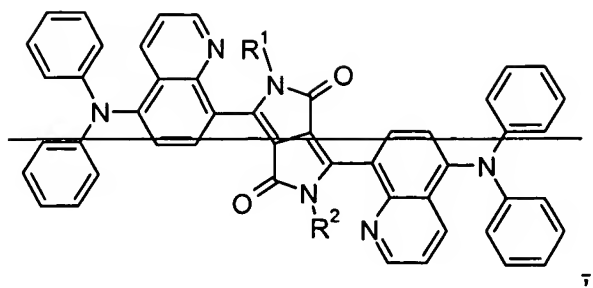


R⁵, R⁶, and R⁷ may be the same or different and are a hydrogen atom, a C₁-C₂₅ alkyl group, a cycloalkyl group, an aralkyl group, an alkenyl group, a cycloalkenyl group, an alkynyl group, a hydroxyl group, a mercapto group, an alkoxy group, an alkylthio group, an aryl ether group, an aryl thioether group, an aryl group, a heterocyclic group, a halogen atom, a haloalkyl group, a haloalkenyl group, a haloalkynyl group, a cyano group, an aldehyde group, a carboxyl group, an

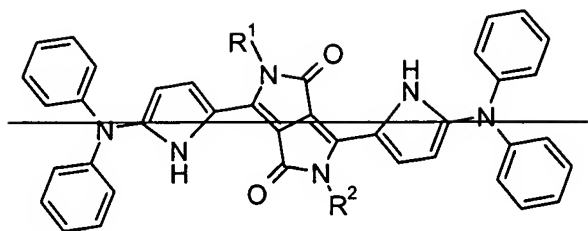
ester group, a carbamoyl group, a nitro group, a silyl group, a siloxanyl group, a substituted or unsubstituted vinyl group, a group NR^8R^9 , wherein R^8 and R^9 independently of each other stand for a hydrogen atom, an alkyl group, a cycloalkyl group, an aryl group, a heteroaryl group, a heterocyclic group, an aralkyl group, or R^8 and R^9 together with the nitrogen atom to which they are bonded form a five or six membered heterocyclic ring, which can be condensed by one or two optionally substituted phenyl groups, or at least two adjacent substituents R^5 to R^7 form an aromatic or aliphatic fused ring system.

19. **(currently amended):** A fluorescent diketopyrrolopyrrole according to claim 4, which is









20. **(previously presented):** A composition according to claim 5, wherein the host chromophore is a diketopyrrolopyrrole having a photoluminescence emission peak at 520 to 630 nm.
21. **(previously presented):** A composition according to claim 6, wherein the host chromophore is a diketopyrrolopyrrole having a photoluminescence emission peak at 520 to 630 nm.